

ABSTRACT OF THE DISCLOSURE

An electronic drive unit assembly independently drives each drivable wheel on a heavy-duty vehicle. The drive unit assembly includes a spindle that defines an inner chamber and which is mounted to a vehicle structure. A wheel hub is mounted for rotation relative to the spindle. An electric motor is mounted within the inner chamber and has an output shaft that is operatively coupled to a reduction gear assembly that is used to drive the wheel hub. The reduction gear assembly includes an inner ring gear mounted to the spindle and an outer ring gear mounted to the wheel hub. An inner set of planet gears is in meshing engagement with the inner ring gear and an outer set of planet gears is in meshing engagement with the outer ring gear. A planetary spider assembly rigidly connects the inner and outer sets of planet gears. The inner planet gears have a different number of teeth than the outer planet gears to achieve the desired gear reduction.

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